

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A fine channel device, comprising:

~~at least one fluid inlet port for introducing at least one fluid,~~

~~at least one fine channel for performing a chemical treatment of the fluid or for producing fine particles from the fluid,~~

~~at least one fluid outlet port for discharging at least one fluid applied with the chemical treatment or at least one fluid containing the fine particles produced;~~

wherein:

~~the fine channel device is constituted by at least one fluid supply device for supplying the fluid into the fine channel and at least one fine channel substrate having the fine channel;~~

~~the fluid supply device comprises at least one perforated opening as a fluid inlet port for introducing the fluid, a storage space for temporarily storing the introduced fluid which is communicated with the fluid inlet port, and at least one supply channel of linear and/or curved form, formed in a radial direction, which is communicated with each of the fluid inlet ports of at least one fine channel formed in the fine channel substrate to supply the fluid from the storage space to the fine channel; and~~

~~said at least one fluid supply device has at least one perforated opening formed in the fluid supply device, and the perforated opening communicates with each of the fluid outlet ports of the at least one fine channel in the fine channel substrate, the perforated opening being used as a fluid outlet port for discharging the fluid~~ at least one fine channel substrate including at least one fine channel for performing a chemical treatment of a fluid or for producing fine particles from the fluid, at least one fluid inlet port to supply at least one fluid to the at least one fine channel and at least one fluid outlet port for discharging the at least

one fluid applied with the chemical treatment or the at least one fluid containing the fine particles;

at least one fluid supply device including, at least one first opening for introducing the at least one fluid into a storage space for storing the at least one fluid, and at least one supply channel formed in a radial direction, the at least one supply channel communicating with the at least one inlet port to supply the at least one fluid from the storage space to the at least one fluid inlet port of the at least one fine channel substrate; and a second opening communicating with the at least one fluid outlet port of the at least one fine channel substrate to discharge the at least one fluid from the at least one fine channel, the at least one fluid supply device is arranged above the at least one fine channel substrate.

Claim 2 (Original): The fine channel device according to Claim 1, wherein at least one introduced fluid can be introduced from the storage space of the fluid supply device into the fluid inlet port of the fine channel substrate having the fine channel independently, and the at least one fluid supply device sandwiches the at least one fine channel substrate.

Claim 3 (Currently Amended): The fine channel device according to Claim 2, wherein supply channels of ~~[[the]]~~ at least two fluid supply devices are disposed so as not to overlap with supply channels of other fluid supply devices, and the at least one fluid supply device sandwiches the at least one fine channel substrate.

Claim 4 (Currently Amended): The fine channel device according to any one of Claims 1 to 3, ~~which is constituted by~~ further comprising piling-up at least two fine channel substrates each having a fine channel for performing a chemical treatment or producing fine particles from a fluid, wherein ~~each~~ the fluid inlet ports ~~for the each~~ fine channel substrate

communicate is communicated with any one of the at least one supply channels channel of the fluid supply device.

Claim 5 (Currently Amended): The fine channel device according to any one of Claims 1 to [[4]] 3, wherein the shape of the storage space is a circular recess.

Claim 6 (Currently Amended): The fine channel device according to any one of Claims 1 to [[4]] 3, wherein the shape of the storage space is a polygonal recess.

Claim 7 (Currently Amended): A desksize chemical plant, comprising:  
a plurality of [[the]] fine channel devices each ~~defined in Claim 1,~~ fine channel device, including at least one fine channel substrate including at least one fine channel for performing a chemical treatment of a fluid or for producing fine particles from the fluid, at least one fluid inlet port to supply at least one fluid to the at least one fine channel and at least one fluid outlet port for discharging the at least one fluid applied with the chemical treatment or the at least one fluid containing the fine particles; at least one fluid supply device including, at least one first opening for introducing at least one fluid into a storage space for storing the at least one fluid, and at least one supply channel formed in a radial direction, the at least one supply channel communicating with the at least one fluid inlet port to supply the at least one fluid from the storage space to the at least one fluid inlet port of the at least one fine channel substrate; and a second opening communicating with the at least one fluid outlet port of the at least one fine channel substrate to discharge the at last one fluid from the at least one fine channel, the at least one fluid supply device is arranged above the at least one fine channel substrate;

~~means for supplying a supply mechanism configured to supply~~ at least one fluid to the plurality of fine channel devices[[,]]; and

~~means for recovering a recovery mechanism configured to recover~~ products produced by the chemical treatment for the fluid or fine particles formed from the fluid.

Claim 8 (Currently Amended): The desksize chemical plant according to Claim 7, wherein the ~~means for supplying the fluid~~ supply mechanism is of a pressure-driven type, and the desksize chemical plant further comprises ~~means for degassing a degassing mechanism~~ configured to degas liquid to be supplied to the fine channel device.

Claim 9 (Currently Amended): The desksize chemical plant according to Claim 7 or 8, ~~which further comprises~~ comprising:

a distributor ~~for supplying~~ configured to supply the fluid to the fine channel device[[,]]; and

a collector ~~for recovering~~ configured to recover the fine particles formed in the fine channel device.

Claim 10 (Currently Amended): The desksize chemical plant according to any one of Claims 7 to [[9]] 8, ~~which further comprises~~ means for adjusting comprising:

an adjusting mechanism configured to adjust the fluid pressure produced in the fine channel device.

Claim 11 (Currently Amended): The desksize chemical plant according to any one of Claims 7 to [[10]] 8, ~~which further comprises~~ comprising:

a flow mechanism for flowing a configured to circulate fluid in the regular or the reverse direction ~~as means for cleaning to clean~~ the fine channel device.

Claim 12 (Currently Amended): The desksize chemical plant according to any one of Claims 7 to [[11]] 8, ~~which further comprises~~ comprising:

~~means for supplying a drying mechanism configured to supply~~ a gas for drying the fine channels ~~channel constituting the fine channel device.~~

Claim 13 (Currently Amended): The desksize chemical plant according to any one of Claims 7 to [[12]] 8, ~~which further comprises~~ comprising:

an automatic supply mechanism configured to supply ~~means for automatically supplying~~ raw materials for performing a chemical treatment or for producing fine particles to tanks for storing them[[,]]; and ~~means for automatically feeding an automatic feed~~ mechanism configured to feed products produced by the chemical treatment or fine particles produced from tanks for recovering them.

Claim 14 (Currently Amended): The desksize chemical plant according to any one of Claims 7 to [[13]] 8, ~~which further comprises~~ comprising:

a first tank for configured to temporarily storing store the raw material discharged from the fine channels other than the products in order to reuse at least one of the raw materials for performing the chemical treatment or for producing the fine particles; and

~~means for recovering a raw material recovery mechanism configured to recover~~ the raw materials to be reused from the ~~above~~ first tank to ~~the~~ a second tank for storing the raw material.

Claim 15 (Currently Amended): The desksize chemical plant according to any one of Claims 7 to [[14]] 8, ~~which further comprises~~ comprising:

a separating mechanism configured to separate ~~means for separating only~~ the raw material to be reused from the raw material containing other raw materials and/or products of the chemical treatment or the fine particles produced.

Claim 16 (Currently Amended): The desksize chemical plant according to any one of Claims 7 to [[15]] 8, ~~which further comprises~~ comprising:

a storage tank for storing configured to store fluid to be supplied to the fine channel device;

a recovery tank for recovering configured to recover products produced by performing the chemical treatment or fine particles produced; and

~~means for controlling~~ a control mechanism configured to control the temperature of the ~~above~~ storage and recovery tanks and the fine channel ~~device~~ device.

Claim 17 (Currently Amended): The desksize chemical plant according to any one of Claims 7 to [[16]] 8, ~~which further comprises~~ comprising:

a plurality of valves for adjusting configured to adjust the quantity of the fluid supplied when the fluid is supplied to the fine channel device, ~~the plurality of valves being for adjusting the supply rate of the fluid~~ to be a predetermined supply rate.

Claim 18 (Currently Amended): The desksize chemical plant according to any one of Claims 7 to [[17]] 8, ~~which further comprises~~ comprising:

an automatically controllable means used in at least one process selected from the group consisting of automatic control mechanism configured to be used in at least one of

supplying fluid to the fine channel device, recovering products produced by the chemical treatment or fine particles produced in the fine channel device, washing the fine channel device and drying the fine channel device.

Claim 19 (Currently Amended): A desksize chemical plant fine particle producing apparatus ~~which is the desksize chemical plant as defined in any one of Claims 7 to 18,~~  
~~further comprising~~ comprising:

a plurality of fine channel devices each fine channel device, including at least one fine channel substrate including at least one fine channel for performing a chemical treatment of a fluid or for producing fine particles from the fluid, at least one fluid inlet port to supply at least one fluid to the at least one fine channel and at least one fluid outlet port for discharging the at least one fluid applied with the chemical treatment or the at least one fluid containing the fine particles; at least one fluid supply device including, at least one first opening for introducing at least one fluid into a storage space for storing the at least one fluid, and at least one supply channel formed in a radial direction, the at least one supply channel communicating with the at least one fluid inlet port to supply the at least one fluid from the storage space to the at least one fluid inlet port of the at least one fine channel substrate; and a second opening communicating with the at least one fluid outlet port of the at least one fine channel substrate to discharge the at least one fluid from the at least one fine channel, the at least one fluid supply device is arranged above the at least one fine channel substrate;

a supply mechanism configured to supply at least one fluid for producing the fine particles to the plurality of fine channel devices; and

~~means for supplying at least one fluid for producing fine particles to the fine channel device as defined in any one of Claims 1 to 6, and~~

a fine particle recovering mechanism configured to recover ~~means for recovering the~~  
fine particles produced in the fine channel device.

Claim 20 (Original): The fine particle producing apparatus according to Claim 19, wherein the fluids for producing fine particles comprises a liquid containing a raw material for producing gel, and a liquid containing a dispersing agent for producing gel.

Claim 21 (Currently Amended): The fine particle producing apparatus according to Claim 19 or 20, wherein the at least one fine channel ~~constituting the fine channel device~~ has a Y-shape so that a dispersion phase and a continuous phase introduced from [[the]] respective inlet ports of the fine channel ~~device~~ substrate are confluent in the fine channel to produce fine particles.

Claim 22 (Original): The fine particle producing apparatus according to Claim 21, wherein the angle at which the channel for introducing the dispersion phase crosses the channel for introducing the continuous phase is adjusted to control the size of fine particles produced.